



United States
Department of
Agriculture
Forest Service

FOREST INSECT AND DISEASE MANAGEMENT

Technology Update

Southeastern Area, State and Private Forestry, 1720 Peachtree Road, N.W., Atlanta, Ga. 30309

Southern Pine Beetle Fact Sheet Number 16

CUT-AND-LEAVE¹

The cut-and-leave method was first recommended by the Texas Forest Service for controlling small spots (10 to 50 infested trees) that could not be salvaged. This technique involves felling infested trees and a buffer of uninfested trees and leaving them in the woods. The treatment disrupts spot growth and causes emerging adult southern pine beetles (SPB) to disperse into the surrounding forest. Spots should be treated only if they contain trees with fresh attacks. The method has been primarily used in the gulf coast States.

Cut-and-leave is practical, relatively inexpensive, and requires a minimum of manpower, equipment, and training. The procedure can be applied soon after spots are detected. The major disadvantage is that a buffer strip of green uninfested trees must be felled around each spot to assure that newly attacked trees, which favor spot growth, are included in the treatment. If salvage becomes feasible at a later date, the felled trees can be removed. Larger spots (51 to 150 trees) can be treated using the cut-and-leave method if the spots will eventually be salvaged.

Procedures for Cut-and-Leave

1. Select spots with 10 to 50 infested trees. Some may have fresh attacks. Higher priority

spots, those with a high proportion of newly attacked trees, should be treated first. Spots with more than 50 infested trees can be treated if they are to be salvaged later.

2. Mark and fell SPB-infested trees toward the center of the spot.

3. Mark and fell a horseshoe-shaped buffer strip of green uninfested trees around those with fresh attacks. Fell them toward the center of the spot. In small spots, the buffer may encircle the spot. However, the buffer should be no wider than the average height of the trees in the spot.

4. Dead trees from which all SPB have emerged need not be felled. Leaving these trees will allow the beetle's natural enemies to complete their development and emerge. Such trees also provide den sites for certain woodpecker species.

5. Check cut-and-leave spots for breakouts² during the next aerial survey. Treat breakouts as needed.

When to Act

Cut-and-leave should be used during the period when SPB spots are expanding (approximately May to October).

Other Options

The landowner's management objectives affect the choice of one or several treatment methods. Recommended treatment methods not discussed in this fact sheet include salvage removal, chemical

¹ See Southern Pine Beetle Fact Sheet No. 3 **Setting Control priorities for the southern pine beetle.**

² When SPB emerging from a treated spot attack neighboring trees, this new infestation is known as a breakout.

control, and pile-and-burn. SPB Fact Sheets 15, 17, and 18 discuss these three methods, respectively.

This fact is based on information in Agricultural Handbook Number 575, Direct Control Methods for the Southern Pine Beetle, by Kenneth Swain, Sr., USDA Forest Service and Michael Remlon, South Carolina State Commission of Forestry. The handbook will be published in 1981.

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